

## **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application.

### **Listing of Claims:**

1. (currently amended) is An an apparatus for measuring signals the natural gamma radiation  
in discrete media of drilling cuttings comprising: consists of:

a) at least one sensor placed proximate an analytical tube; and

b) an auger within the analytical tube for conveying the drilling cuttings through the analytical tube, past the at least one sensor.

2. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a natural gamma radiation sensor. is the means of obtaining signal that is discriminating the natural gamma radiation of different formations obtained at the surface from unconsolidated material and drilling cuttings.

3. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor is the apparatus for measuring the absorption properties of gamma radiation in discrete media of drilling cuttings-consist of:

4. (currently amended) The apparatus of claim 3, comprising two sensors, first a ~~First is the~~ gamma ray (15) ~~15~~ and ~~second~~ a beta ray (16) ~~16~~ receivers receiver attached together on one side of the analytical tube.

5. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor is the apparatus for measuring the Induction Resistivity properties of formation in discrete media of drilling cuttings.

6. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a sensor is the apparatus for measuring the Sonic velocities and penetration properties of formation in discrete media of drilling cuttings.

7. (currently amended) A method is the parameter to correlate the quantity of sample passing at this time through an the auger, comprising correlating the The relative deflections depending on quantity of sample passing through the auger. ~~will be explained.~~

8. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a is the apparatus for Fluorescence brightness measurement by injection of dissolvent (55) 55.

9. (currently amended) The method of claim 7, further comprising is the process of constantly injecting small dose of dissolvent in to the cuttings flow.

10. (currently amended) The apparatus of claim 1, wherein the at least one sensor comprises a fluorescent brightness measurement sensor (54) is sensor 54, which measures the amplitude and frequency of light emission produced.